

Cat. No. 40-4071

## 6-Speaker Home Theater System

Your Optimus 6-Speaker Home Theater System is specially designed to give you great sound quality for the ultimate home theater experience. It includes two main (front) speakers, a center channel speaker, two rear channel surround speakers, and a 50-watt powered subwoofer.

Your main front speakers each have a 5-inch, long excursion woofer and a  $\frac{1}{2}$ -inch Polyamide dome tweeter. Your center channel speaker is magnetically shielded and contains two  $4\frac{1}{2}$ -inch high compliance woofers for excellent bass response and a 2-inch cone tweeter for clear and natural high-frequency sound reproduction. Each rear channel surround speaker has a  $4\frac{1}{2}$ -

inch hi-polymer laminate full-range driver, which is acoustically matched to the two main and center channel speakers. Your subwoofer has an 8-inch high compliance woofer and a 50-watt amplifier to produce tight, floor-rumbling powerful bass down to 40 Hz that you can feel as well as hear.

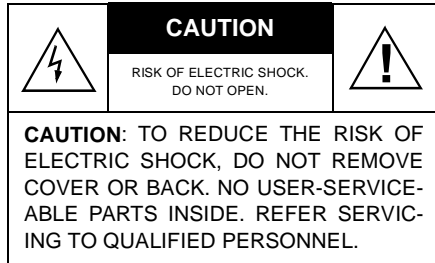
The speaker cabinets are solid in construction and finished in genuine black wood-grain vinyl. The decorative grilles are acoustically transparent.

**Note:** You need speaker wire (not supplied) to connect your speakers. Please read this entire manual before you connect your speakers.

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**Warning:** To prevent fire or shock hazard, do not expose this product to rain or moisture.



This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.



This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

- Do not place the subwoofer with its metal plate against the floor.
- To prevent the cabinets from warping or discoloring, do not place the speakers where they are exposed to direct sunlight or excessive humidity.
- Do not place the speakers where they might be knocked over or exposed to falling objects.

## SPEAKER PLACEMENT

Where and how you position your speakers has a great effect on the overall sound of your surround sound system.

### Cautions:

- Place the speakers away from heat sources such as radiators, stoves, or other appliances.
- Place your subwoofer at least 2-3 feet away from your television or your computer's disk drive system so the speaker's magnet won't distort your TV picture's color or erase your floppy disks.

## Center Channel Speaker

The center channel output contains the majority of the dialogue and sound that comes from on-screen action. Therefore, you should place it as close as possible to the television, preferably centered on top of the TV. Place the front edge of the center channel speaker grille flush with the edge of the television.

Your center channel speaker is magnetically shielded to prevent interference with your television's picture. It is possible, however, that some interference might occur.

If this happens, turn off your TV for 15 minutes and move the speaker back about 1 inch from the front of the TV. Turn on the TV and recheck. If interference still occurs, move the center channel speaker back further until the interference disappears.

Use the four supplied anti-slip pads as follows:

**When installing the speaker above the TV set,** place the thicker pads toward the back of the speaker and the thinner pads toward the front of the speaker.

**When installing the speaker below the TV set,** place the thinner pads toward the back of the speaker and the thicker pads toward the front of the speaker.

## Main Front Speakers

The main front speakers are critical for home theater sound. They provide sound for the action that takes place off screen, as well as sounds that move from left to right or right to left. Place them at least 2 feet away from the TV, with the centers of their grilles as close as possible to the listener's ear level.

## Rear Channel Surround Speakers

Rear channel surround speakers produce subtle sounds that help create special effects, convey a sense of movement, and give viewers the sensation that they're "inside" a movie.

The ideal position for your rear channel surround speakers is behind the listening area and at ear level.

You can place your surround speakers on a shelf, or mount them on a wall using two #8 1½-inch round-head wood screws (not included).

Follow these steps to mount each surround speaker on a wall.

1. Drive the screws into the wall, making sure they fasten to a wall stud. Leave approximately  $\frac{1}{4}$  inch of the screw extending from the wall.
2. Align the screw head with the key-hole on the back of the speaker.
3. Push down the speaker until it is secure.

### Powered Subwoofer

Where and how you position your subwoofer greatly affects its bass response. Adjusting the subwoofer's volume control in relation to the left and right speakers and adjusting the subwoofer's high cut filter also affects your speaker's overall sound.

Although low frequencies are nondirectional, factors such as room reflections, resonance and absorption strongly affect your subwoofer's performance. For the maximum bass output, place your subwoofer in a corner on the floor. To reduce output, move it away from corners and back walls, and off the floor. Even slightly moving the subwoofer can have a major effect on bass response.

We recommend that you test the subwoofer in different locations to achieve the best balance between your main speakers and subwoofer.

## CONNECTING THE SPEAKERS TO AN AMPLIFIER/RECEIVER

### Notes:

- You can use an amplifier/receiver with an output power rating higher than that of the speaker system, but take care never to exceed the speaker system's maximum power rating (see "Specifications").
- To avoid any damage to the speaker system or amplifier/receiver, turn off the amplifier/receiver before making connections.

Your local Radio Shack store has a wide selection of speaker wire. We recommend you use color-coded or marked wire to help you correctly connect the wire. Color-coded wires have a stripe running down one side of the conductors. Marked wires have ridges along one side of the conductors.

With the speakers in their approximate locations, measure the distance from each speaker to the amplifier. Use 18-gauge speaker wire or lamp cord for distances up to 50 feet. For greater distances, use 16-gauge wire.

1. Split apart about 4 inches of speaker wire on each end.

2. Use a wire stripper to strip  $\frac{1}{4}$  inch of insulation from each wire's end. Twist the loose wire strands to prevent the wires from shorting.

4. Press the right front speaker's positive (+) terminal tab and insert the other bare wire end into the opening. Then release the tab.
5. Insert the other end of the wire you inserted into the right front speaker's negative (-) terminal into your A/V amplifier/receiver's right front negative (-) speaker terminal.

3. Press the right front speaker's negative (-) terminal tab and insert one of the bare wire ends into the opening. Then release the tab.

#### **Amplifier/Speaker Connections with the Subwoofer Connected to Speaker Terminals**

**Note:** For the maximum bass response and the best performance, be sure your speaker wires are properly connected according to their polarity (+ to + and – to –).

6. Connect the remaining wire to the A/V amplifier/receiver's right front positive (+) speaker terminal.
7. Repeat this process for the left front speaker, the rear channel speakers, and the center channel speaker.

## CONNECTING THE SUBWOOFER TO POWER

Route the subwoofer's power cord so it is not likely to be walked on or pinched by items placed upon or against it, especially at plugs, convenience receptacles, and the point where it exits from the unit. Connect the power cord to a standard 120 volt/60 Hz AC outlet.

**Warning:** To prevent electrical shock, do not use this polarized plug with an extension cord receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

**Caution:** Only connect the subwoofer to a power supply of the required type .

Unplug the subwoofer's power cord from the electrical outlet if it will not be used for a long period of time.

## CONNECTING THE SUBWOOFER TO AN AMPLIFIER/RECEIVER

You can connect your subwoofer to an amplifier/receiver's speaker terminals or line out terminals.

### Connecting the Subwoofer to Speaker Terminals

You can connect the amplifier/receiver's speaker output terminals to the subwoofer's **HIGH LEVEL INPUT** speaker terminals (see the illustration on Page 5).

Be sure to connect the amplifier/receiver's positive (+) terminals to the subwoofer's positive terminals, and the amplifier/receiver's negative (–) terminals to the subwoofer's negative terminals.

Wiring the subwoofer with incorrect polarity greatly reduces bass performance.

After you make all connections, tug lightly on the speaker wires to make sure they are secured.

### Connecting the Subwoofer to Low Level Input Jacks

Your amplifier/receiver's line out jacks might be labeled either REC OUT or PRE OUT.

Connect the subwoofer's **LOW LEVEL INPUT** jacks to the amplifier/receiver's line out jacks with phono cables (not supplied). Be sure to connect the jacks in phase, connecting left to left and right to right.

- You can connect your subwoofer to your television if your television has line out jacks. Simply connect the **LOW LEVEL INPUT** jacks to the television's line out terminals with phono cables.

**Notes:**

- If you connect your subwoofer to your amplifier/receiver's line out terminals and your amplifier/receiver has a line out selector switch, be sure to set it to the correct source.

## SUBWOOFER OPERATION

Move **POWER ON/OFF** up to turn power on, or down to turn power off. The **POWER** indicator lights when power is on.

### Amplifier/Speaker Connections with the Subwoofer Connected to Low Level Input Jacks

## Adjusting the Volume Control

After all connections are made, adjust the subwoofer's volume control.

1. Rotate the **VOLUME CONTROL** knob to **MIN.**
2. Turn on your entire audio system.
3. Turn on the subwoofer.
4. Play a CD, record, cassette, radio or TV and adjust the entire system's overall volume to a comfortable level.
5. Rotate the subwoofer's **VOLUME CONTROL** clockwise, a little at a time, until you achieve the desired balance of bass between the subwoofer and the main speakers.

Bass output should not overpower the main speakers, but should blend across the entire musical range.

After you adjust **VOLUME CONTROL**, use the amplifier/receiver's volume control to control the speaker's volume.

## Adjusting the High Cut Frequency

**FREQUENCY HZ** adjusts the high end of the subwoofer's frequency range between 50 Hz and 150 Hz. Set this control to complement your front speakers' low frequency capabilities, the placement of your speakers, and the acoustics of your listening room.

Follow these steps to adjust the high cut frequency.

1. Rotate **FREQUENCY HZ** clockwise until it sounds like the music is too bass-heavy.
2. Rotate the control counterclockwise until the bass sounds more natural.

If the mid-bass sounds natural but you want more low bass, rotate **FREQUENCY HZ** counterclockwise a little, then turn the volume control up by about the same amount.

To reduce low bass output without affecting the mid-bass output, rotate **FREQUENCY HZ** clockwise and the volume control down.



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## CARE AND MAINTENANCE

Your 6-Speaker Home Theater System is an example of superior design and craftsmanship. The following suggestions will help you care for your speakers so you can enjoy them for years.

- Handle the speakers gently and carefully. Dropping them can damage circuit boards and cases and can cause the speakers to work improperly.
- Use and store the (product name) only in normal temperature environments. Temperature extremes can shorten the life of electronic devices and distort or melt plastic parts.
- To maintain the speaker cabinets' finish, do not let them come in contact with water vapor, alcohol, benzene, insecticide, or similar liquids. Do not place a plastic covering on top of the speakers, as the plastic's color could come off and stick to the finish.
- Clean the speaker cabinets with a soft, dry cloth.

**Caution:** You might permanently damage your speakers by cleaning them with a vacuum cleaner. Instead, use a feather duster or a soft cloth.

- Never touch the speaker elements with your hands or expose them to excessive shocks. If they become dented or bent, the sound distorts.
- Never open the subwoofer's cabinet or remove its metal control panel, as this might result in electrical shock or damage to the unit. If your subwoofer needs servicing, contact your nearest Radio Shack store.

Modifying or tampering with the speakers' internal components can cause a malfunction and might invalidate your speakers' warranty. If your speakers are not performing as they should, take them to your local Radio Shack store for assistance.

## SPECIFICATIONS

### FRONT SPEAKERS

|                              |                                                                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Speaker Complement .....     | Woofer: 5-Inch Long Excursion Woofer<br>Tweeter: 1/2-Inch Polyamide Dome Tweeter                                                    |
| Impedance .....              | 8 Ohms                                                                                                                              |
| Frequency Response .....     | 58Hz–20 kHz                                                                                                                         |
| Power Handling (RMS) .....   | 35 Watts                                                                                                                            |
| Maximum Power .....          | 70 Watts                                                                                                                            |
| Sensitivity .....            | 89 dB                                                                                                                               |
| System Resonance .....       | 58 Hz                                                                                                                               |
| Enclosure .....              | Bass Reflex Design                                                                                                                  |
| Dimensions (H × W × D) ..... | 11 <sup>7</sup> / <sub>8</sub> × 7 <sup>3</sup> / <sub>8</sub> × 7 <sup>3</sup> / <sub>4</sub> Inches<br>(301.6 × 187.3 × 196.8 mm) |
| Weight .....                 | 9 lbs<br>(4.1 kg)                                                                                                                   |

### CENTER CHANNEL SPEAKER

|                              |                                                                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Speaker Complement .....     | Woofer: 4 <sup>1</sup> / <sub>2</sub> -Inch Hi-Polymer Laminate<br>Tweeter: 1/2-Inch Polyamide Dome Tweeter                         |
| Impedance .....              | 8 Ohms                                                                                                                              |
| Frequency Response .....     | 100Hz–20 kHz                                                                                                                        |
| Power Handling (RMS) .....   | 35 Watts                                                                                                                            |
| Maximum Power .....          | 70 Watts                                                                                                                            |
| Sensitivity .....            | 89 dB                                                                                                                               |
| Dimensions (H × W × D) ..... | 5 <sup>1</sup> / <sub>2</sub> × 18 <sup>1</sup> / <sub>4</sub> × 5 <sup>1</sup> / <sub>2</sub> Inches<br>(139.7 × 463.5 × 139.7 mm) |
| Weight .....                 | 9 lbs<br>(4.1 kg)                                                                                                                   |

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## REAR CHANNEL SURROUND SPEAKERS

Speaker Complement ..... 4<sup>1</sup>/<sub>2</sub>-Inch (full range)  
Impedance ..... 8 Ohms  
Frequency Response ..... 120 Hz–16 kHz  
Power Handling (RMS) ..... 25 Watts  
Maximum Power ..... 50 Watts  
Dimensions (H × W × D)..... 9 × 6<sup>1</sup>/<sub>2</sub> × 4<sup>3</sup>/<sub>4</sub> Inches  
(228.6 × 165 × 120.6 mm)  
Weight..... 3 lbs  
(1.4 kg)

## SUBWOOFER

Speaker Complement ..... 8-Inch Long Excursion Woofer  
Frequency Response ..... 40Hz–250 kHz  
Amplifier Output (RMS) ..... 50 Watts  
High Cut Filter ..... 50 Hz–150 Hz  
Adjustable Power Voltage ..... AC 120 V/60 Hz  
Dimensions (H × W × D)..... 14<sup>13</sup>/<sub>16</sub> × 13<sup>1</sup>/<sub>4</sub> × 16<sup>5</sup>/<sub>16</sub> Inches  
(376.2 × 336.5 × 414.3 mm)  
Weight..... 30 lbs  
(13.6 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.

### RADIO SHACK LIMITED WARRANTY

This product is warranted against defects for 5 years from date of purchase from Radio Shack company-owned stores and authorized Radio Shack franchisees and dealers. Within this period, we will repair it without charge for parts and labor. Simply **bring your Radio Shack sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover a product subjected to misuse or accidental damage.

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This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

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